Radionuclide	Absorption type [3]			Absorption type [3]			Stochastic or organ or tissue [1]
	μCi/mL			Bq/m [3]			
	F	M	S	F	M	S	(F/M/S)
Bk-249	–	1 E−09	–	–	5 E+01	–	/BS/
Bk-250	–	2 E−07	–	–	9 E+03	–	/BS/
Cf-244	–	1 E−08	–	–	5 E+02	–	/ET/
Cf-246	–	1 E−09	–	–	5 E+01	–	/St/
Cf-248	–	5 E−11	–	–	2 E+00	–	/BS/
Cf-249	–	3 E−12	–	–	1 E−01	–	/BS/
Cf-250	–	7 E−12	–	–	2 E−01	–	/BS/
Cf-251	–	3 E−12	–	–	1 E−01	–	/BS/
Cf-252	–	1 E−11	–	–	6 E−01	–	/BS/
Cf-253	–	5 E−10	–	–	2 E+01	–	/St/
Cf-254	–	2 E−11	–	–	8 E−01	–	/BS/
Es-250	–	4 E−07	–	–	1 E+04	–	/BS/
Es-251	–	3 E−07	–	–	1 E+04	–	/St/
Es-253	–	2 E−10	–	–	9 E+00	–	/St/
Es-254m	–	1 E−09	–	–	5 E+01	–	/St/
Es-254	–	6 E−11	–	–	2 E+00	–	/BS/
Fm-252	–	2 E−09	–	–	8 E+01	–	/St/
Fm-253	–	1 E−09	–	–	6 E+01	–	/St/
Fm-254	–	6 E−09	–	–	2 E+02	–	/ET/
Fm-255	–	2 E−09	–	–	8 E+01	–	/St/
Fm-257	–	1 E−10	–	–	4 E+00	–	/St/
Md-257	–	2 E−08	–	–	1 E+03	–	/St/
Md-258	–	1 E−10	–	–	4 E+00	–	/St/

FOOTNOTES FOR APPENDIX A

[1] A determination of whether the DACs are controlled by stochastic (St) or deterministic (organ or tissue) dose, or if they both give the same result (E), for each absorption type, is given in this column. The key to the organ notation for deterministic dose is: BS = Bone surface, ET = Extrathoracic, K = Kidney, L = Liver, and T = Thyroid. A blank indicates that no calculations were performed for the absorption type shown.

[2] The ICRP identifies these materials as soluble or reactive gases and vapors or highly soluble or reactive gases and vapors. For tritiated water, the inhalation DAC values allow for an additional 50% absorption through the skin, as described in ICRP Publication No. 68, Dose Coefficients for Intakes of Radionuclides by Workers. For elemental tritium, the DAC values include a factor that irradiation from gas within the lungs might increase the dose by 20%.

[3] A dash indicates no values given for this data category.

[4] DAC values derived using hafnium tritide particle and are based on ''observed activity'' (i.e, only radiation emitted from the particle is considered). DAC values derived using methodology found in Radiological Control Programs for Special Tritium Compounds, DOE–HDBK–1184–2004.

[5] These values are appropriate for protection from radon combined with its short-lived decay products and are based on information given in ICRP Publication 65: Protection Against Radon-222 at Home and at Work and in DOE–STD–1121–98: Internal Dosimetry. The values given are for 100% equilibrium concentration conditions of the short-lived radon decay products with the parent. To allow for an actual measured equilibrium concentration or a demonstrated equilibrium concentration, the values given in this table should be multiplied by the ratio (100%/actual %) or (100%/demonstrated %), respectively. Alternatively, the DAC values for Rn-220 and Rn-222 may be replaced by 2.5 working level (WL) and 0.83 WL, respectively, for appropriate limiting of decay product concentrations. A WL is any combination of short-lived radon decay products, in one liter of air without regard to the degree of equilibrium, that will result in the ultimate emission of 1.3 E+05 MeV of alpha energy.

[72 FR 31927, June 8, 2007]

APPENDIX B TO PART 835 [RESERVED]

APPENDIX C TO PART 835—DERIVED AIR CONCENTRATION (DAC) FOR WORKERS FROM EXTERNAL EXPOSURE DURING IMMERSION IN A CLOUD OF AIRBORNE RADIOACTIVE MATERIAL

a. The data presented in appendix C are to be used for controlling occupational exposures in accordance with §835.209, identifying the need for air monitoring in accordance with §835.403 and identifying the need for posting of airborne radioactivity areas in accordance with §835.603(d).

b. The air immersion DAC values shown in this appendix are based on a stochastic dose